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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,771	05/09/2006	Werner Stockum	MERCK-3187	6210

23599 7590 02/08/2010
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EXAMINER

NGUYEN, HUNG D

ART UNIT	PAPER NUMBER
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3742

NOTIFICATION DATE	DELIVERY MODE
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02/08/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mwzb.com

Office Action Summary	Application No. 10/578,771	Applicant(s) STOCKUM ET AL.	
	Examiner HUNG NGUYEN	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-3, 5, 6, 9-14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delp et al. (US Pub. 2004/0013969) (previously cited) in view of Koops et al. (WO 03080334) (newly cited).

3. Regarding claim 1, Delp et al. discloses a process for permanent and abrasion-resistant colored inscription or marking of a plastic, comprising welding a mixture of colorant and absorber substance to a surface of a plastic under the action of laser light during inscription or marking (Abstract; Par. 8); the mixture of colorant and absorber substance can be in the form of multilayered polymer component (Par. 23).

Delp et al. does not disclose a polymer component is in a layer system which comprises two layers lying one on top of the other and separated by a support film, wherein each of these two layers may contains one or more where the first layer comprises a plastic which comprises an energy absorber intrinsically or as a layer, and the second layer applied to a support film serves as inscription medium and comprises a colorant and a polymer component.

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Koops et al. discloses polymer component is in a layer system which comprises two layers 1 and 3 (Fig. 1) lying one on top of the other and separated by a support film 2 (Fig.1), wherein each of these two layers may contains one or more layers, where the first layer comprises a plastic which comprises an energy absorber intrinsically or as a layer (Page 2, Lines 42-46 of English translation), and the second layer applied to a support film serves as inscription medium and comprises a colorant and a polymer component (Page 7, Lines 6-8 of English translation). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Delp et al., a polymer component is in a layer system which comprises two layers lying one on top of the other and separated by a support film, wherein each of these two layers may contains one or more where the first layer comprises a plastic which comprises an energy absorber intrinsically or as a layer, and the second layer applied to a support film serves as inscription medium and comprises a colorant and a polymer component, as taught by Koops et al., for the purpose of inscription/marketing of a plastic by a multilayer laser transfer film.

1. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Delp et al. (US Pub.2004/0013969) in view of Koops et al. (WO 03080334) and further view of Raupach et al. (US Pub. 2005/0249938) (previously cited).
2. Regarding claim 4, Delp/Koops disclose substantially all features of the claimed invention as set forth above **except** for the plastic layer comprises 0.01-20% by weight of energy absorber. Raupach et al. discloses the laser sensitive layer (same as energy absorber) is from 0.05 to 10% by weight base on the support layer (same as plastic

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layer) (Par. 29). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in the combined references the teaching of Raupach et al. in order to have the plastic layer comprises 0.01-20% by weight of energy absorber, for the purpose of enabling the inner layer to be marked through the outer layers.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Delp et al. (US Pub.2004/0013969) in view of Koops et al. (WO 03080334) and further view of Furukawa (US Pub. 2004/0218028) (previously cited).

4. Regarding claim 8, Delp/Koops disclose substantially all features of the claimed invention as set forth above **except** the polymer component in particulate form has particle sizes of sizes of 10 nm – 100 μ m. Furukawa discloses the resin material (same as polymer components) in the size of 5–100 μ m (Par. 53). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Delp/Koops, the polymer component in particulate form has particle sizes of 10 nm-100 μ m, as taught by Furukawa et al., for the purpose of stably fixed the polymer.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Delp et al. (US Pub.2004/0013969) in view of Koops et al. (WO 03080334) and further view of Braun (US Pub. 2003/0136847) (newly cited).

6. Regarding claim 15, Delp/Koops disclose substantially all features of the claimed invention as set forth above **except** for the first and second layers are bonded to one another by hot lamination. Braun discloses the layers are bonded to one another by hot lamination (Par. 16). It would have been obvious to one of ordinary skill in the art at the

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time of the invention was made to utilize in Delp/Koops, the first and second layers are bonded to one another by hot lamination, as taught by Braun, for the purpose of permanently bonded/attached the layers.

7. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delp et al. (US Pub.2004/0013969) in view of Koops et al. (WO 03080335) (newly cited).

8. Regarding claims 18-19, Delp et al. discloses a process for permanent and abrasion-resistant colored inscription or marking of a plastic, comprising welding a mixture of colorant and absorber substance to a surface of a plastic under the action of laser light during inscription or marking (Abstract; Par. 8); the mixture of colorant and absorber substance can be in the form of multilayered polymer component (Par. 23).

Delp et al. does not disclose a plastic layer containing two support layers (1') and (1'') which are transparent and stable to laser light and which have a laser-sensitive energy-absorber layer (2) as interlayer, and a layer (3) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers (1'), (1''), (2) and (3) are bonded to one another to form a unit; a plastic layer containing a support layer (1') which is transparent and stable to laser light and which has a laser-sensitive energy-absorber layer (2) thereon, and a layer (3) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers (1'), (2) and (3) are bonded to one another to form a unit; a plastic layer containing two support layers (1') and (1'') which are transparent and stable to laser light and which have a laser-sensitive energy-absorber layer (2) as interlayer, a

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layer (3') containing the polymer component, and a layer (3'') containing a colorant, which layers (1'), (1''), (2), (3') and (3'') are bonded to one another to form a unit; or a support layer (4) which is doped with an energy absorber and a layer (3) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers (4) and (3) are bonded to one another to form a unit.

Koops et al. discloses a plastic layer containing two support layers 1 (Fig. 1) and 2 (Fig. 1) which are transparent and stable to laser light and which have a laser-sensitive energy-absorber layer 3 (Fig. 1) as interlayer, and a layer 4 (Fig. 1) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers 1, 2, 3 and 4 (Fig. 1) are bonded to one another to form a unit; a plastic layer containing a support layer 1 (Fig. 1) which is transparent and stable to laser light and which has a laser-sensitive energy-absorber layer 3 (Fig. 1) thereon, and a layer 4 (Fig. 1) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers 1, 3 and 4 (Fig. 1) are bonded to one another to form a unit; a plastic layer containing two support layers 1 (Fig. 1) and 2 (Fig. 1) which are transparent and stable to laser light and which have a laser-sensitive energy-absorber layer 3 (Fig. 1) as interlayer, a layer 4 (Fig. 1) containing the polymer component, and a layer 5 (Fig. 1) containing a colorant, which layers 1, 2, 3, 4 and 5 (Fig. 1) are bonded to one another to form a unit, or a support layer 4 (Fig. 1) which is doped with an energy absorber and a layer 5 (Fig. 1) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers 4 and 5 (Fig. 1) are bonded to one another to form a unit. It would have been

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obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Delp et al., a plastic layer containing two support layers (1') and (1'') which are transparent and stable to laser light and which have a laser-sensitive energy-absorber layer (2) as interlayer, and a layer (3) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers (1'), (1''), (2) and (3) are bonded to one another to form a unit; a plastic layer containing a support layer (1') which is transparent and stable to laser light and which has a laser-sensitive energy-absorber layer (2) thereon, and a layer (3) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers (1'), (2) and (3) are bonded to one another to form a unit; a plastic layer containing two support layers (1') and (1'') which are transparent and stable to laser light and which have a laser-sensitive energy-absorber layer (2) as interlayer, a layer (3') containing the polymer component, and a layer (3'') containing a colorant, which layers (1'), (1''), (2), (3') and (3'') are bonded to one another to form a unit; or a support layer (4) which is doped with an energy absorber and a layer (3) comprising a polymer-containing inscription medium which comprises a colorant and the polymer component, which layers (4) and (3) are bonded to one another to form a unit, as taught by Koops et al., for the purpose of inscription/marketing of a plastic by a multilayer laser transfer film.

9. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

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10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG NGUYEN whose telephone number is (571)270-7828. The examiner can normally be reached on Monday-Friday, 9M-6PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571)272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG NGUYEN/
Examiner, Art Unit 3742
1/30/2010

/Quang T Van/
Primary Examiner, Art Unit 3742